

Reprinted from the *Journal of the Madras Geographical Association* Vol. 8, No. 2.

54

PRESIDENTIAL ADDRESS
OF

PROF. K. A. NILAKANTA SASTRI, M.A.,

*at the 4th Geographical Conference of the Madras
Geographical Association, Trichy Session.*

PRESIDENTIAL ADDRESS

Less than two years ago, in his retrospect of geographical studies in Britain the Rt. Hon'ble Sir H. J. Mackinder said:

"About half a century has elapsed since the Council of the Royal Geographical Society came gradually and with some controversy to the conclusion that if it would succeed in reforming geographical education it must transfer its attention from the Schools to the Universities. It was at Oxford, our senior University, that a beginning was made. My memory goes back to my first lecture as University Reader there forty-four years ago. I had an audience of three, one man and two women. The man was a Don who told me he knew the geography of Switzerland, for he had just read Baedeker through from cover to cover. The University of Oxford is now at long last to complete the work of my successors by electing a Professor of the subject with full status and emoluments. In the interval every University in the country has set going the teaching of Geography. Thus, the decision to establish the Oxford Chair comes as the endorsement of a general movement and crowns a national development." (Scott. Geogr. Mag. 1931. Vol. 47, p. 321.)

Geography as an independent subject of study is thus a new creation, and its place in the curriculum of studies and as a subject for research still provides matter for argument.

As a school boy I had a little to do with Geography. I recall that Geography was then, as it still is, an annexe of History: in the early stages, Geography was almost entirely a string of names, of continents, countries, peninsulas, mountains, peaks, rivers, tributaries, towns, and, last but not least, exports-imports: later, there was some talk of seasons, eclipses, tides and so on, and I belonged to a school which made a name for its enterprise in cultivating the newest methods and obtaining the best teaching appliances for Geography. I am afraid these opportunities were wasted on me, and the only thing I recollect of the most advanced Geography classes I attended is my having heard some fine descriptions of natural scenery read out to the class by my teacher. But I do not believe that many students of my generation had equally good opportunities of geographical education: speaking generally, it was the era when exports and imports made up Geography, and dates and events constituted the whole of History.

Geography has been gaining better recognition amongst us in recent years and the work of this Association is to serve as a clearing house of the latest researches in the subject. One of the features of the annual conference of the Association is to take up the detailed regional study of the locality of the meeting, and I have no doubt that, presently, you will be invited to discuss a number of interesting and instructive papers on the Geography of the Trichinopoly Region.

A geographer may feel that the recognition accorded to his subject is still slow, meagre, and half-hearted: it is still History and Geography, much to the detriment of the second member in the unequal combination. In the drama of human evolution, the geographer argues, the theatre has been of equal importance with the actor, and the prevalent partiality for the study of History as against that of Geography is somewhat irrational. I remember the brave efforts our geographers made some time ago to produce a syllabus of Geography for the S. S. L. C. which could hold its own by the side of the histories of England and India taken together: they succeeded better than they knew, and the result is seen now in the disaster that threatens to befall both History and Geography in our secondary education course. The same plan was followed by the enthusiasts for Elementary Science and the consequences are similar.

Though cultivated almost from the beginning of recorded history, Geography has always hovered between a hobby and a science. Parts of it, Cartography and Mathematical Geography for instance, were from the beginning characterised by a great amount of accuracy and certitude and have been steadily improved by generations of workers: the rest was superficial observation and vague descriptions. The new Geography which aspires to the position of an independent science is, as Mackinder has pointed out, a creation of the last half a century.

To one who is not a geographer, some puzzling questions inevitably present themselves on the nature and content of geographical studies. He is tempted to ask if Physical Geography is really more than a loose leaf album of strips torn from the natural sciences and manipulated by each geographer after his own fashion; if Mathematical Geography is not more Mathematics than Geography, and if Human Geography again is not a patchwork of data more systematically treated in Economics, Politics, Medicine

and other sciences. Geography in his view, seems to lack the unity which characterises the subject matter of other sciences, and consequently the geographer, being forced to be the Jack of all Sciences, is master of none.

To such enquiries and doubts the geographer must produce a convincing answer, or the future of his science is imperilled. He may indeed point out that criticism is easier than defence, and that defence even though well founded is often difficult. Of the positive contribution of Geography to human knowledge in one sphere, there can be no question. The task of describing the earth accurately by means of scientifically constructed maps based on travels, surveys, observations and so on is preeminently the work of Geography, and if the geographer had not done it, and done it so well, some one else would have had to do it. Then, the true relation of Geography to the other sciences cannot be understood without realising that the central aim of Geography is the study of the earth as the home of man, of 'the human habitat', of how it affects man and his work and is in turn transformed by these. Mackinder illustrates the position thus: "When I was in Africa", he says, "I remember seeing before me a great billowing slope, clothed with dense forest, dark green and burnished in the sunshine. I entered and traversed that forest for a long day. When I emerged and looked back there was the same forest, and yet to my vision it was not the same, for I could now appreciate its texture: I had not merely sight of it, but insight. So it is with the trained geographer: he starts on the shoulders of the scientific specialists, he traverses his natural regions, and emerges with a new grasp and insight of the world as a whole." (Scott. Geog. Mag. Vol. 47. 1931, pp. 328-9.) But having said this, he is modest enough to add: "This, if I mistake not, will be his essential contribution to the shaping of our human destiny in the not far distant future." Geography to-day resembles Economics in this, that no two Professors will agree on their estimates of the relative importance of the various factors at work in individual cases, with this difference, that Geography has never yet attained even the thin core of doctrine and method on which the economists of the world are generally agreed. Much hard thinking will be needed to effect the synthesis by which the two great branches of Modern Geography, Physical and Human, can be integrated into a united whole: but even here there is no lack of fertile suggestion. It has been pointed out, for instance, that both Physical and Human Geography are essentially "concerned with the carriage and stor-

age of energy on the surface of this earth, and the vehicle is the Protean element, water. Even the lightning is incidental to the cloud, and broadcast music depends on steam or water-power." (Scott. Geog. Mag., p. 334.) This perhaps sounds very much like poetry: but does it not sometimes happen that the poetry of to-day is the science of to-morrow?

I wish to say a word on the relation of Geography to History. Historical Geography is wider than what a historian like Freeman understood by that expression. To him it was only historical topography, in particular the shifting of political frontiers. The new conception of Historical Geography is that of a study of the effects of the surface relief upon political and racial boundaries, upon the whole course of civilisation. While the theoretical conception of the scope of Historical Geography is thus stated easily enough, there is not available as yet any scientific method of working out in detail the positive effects of geographical environment on History. That is the reason why, to the chagrin of the geographer, books on History open with vague, but respectful references to the influence of the Geography of a country on its History, and with more or less satisfactory descriptions of the Physical Geography of the countries to which they relate and for the rest of it, forget all about Geography, except when a battle or a campaign clamours for its mention once again. It is no use blaming the historian for this so long as geographers themselves do not speak with settled convictions or evolve a consistent method of study. So far the historian has not been much impressed by the attempts made by geographers and others to explain the course of History by the geographical environment and changes in it, with the result that he still prefers to build on the surer foundation of archaeology and literature.

Take, for instance, Huntingdon's theory of pulsatory changes in climate. It is a theory which has passed through many changes itself, and I shall sketch its outline from the most recent edition available to me of his *Civilisation and Climate* (1924). Climate, Race and Culture are "the three great factors in determining the conditions of civilisation. As to which of the three is most important it is impossible to say." (p. 387.) In historical times, climate "seems to have undergone a pronounced series of pulsations which have varied in character from one part of the earth to another" (p. 6.) and the effects of these changes have depended on the extent of the resulting departure from the optimum con-

ditions of climate (p. 6.), which vary according to a nation's stage of civilisation, and perhaps also from race to race. (p. 17.) The mechanism of these changes consists in variations in storminess and rainfall, rather than in temperature: a shifting of the areas of cyclonic storms alternately toward and away from the equator. (pp. 9-10.)

Criticism and reflection have led Huntingdon to formulate this theory which is so very different from Koropotkin's simple hypothesis of progressive desiccation. But one may ask if in introducing so many refinements into his theory of the climatic basis of History, Huntingdon has not greatly obscured the issue. Even if one concedes the pulsatory hypothesis without argument, and it will not be forgotten that several geographers do not concede either this hypothesis or the 'blanket theory of climate' used to cover such widely different facts as polyandry in Ladakh and the decline of Ancient Greece, one is at a loss to see what it all means. The effects of climatic changes depend not on the amplitude of such changes, but on the deviations they cause from the optimum climatic conditions. And these latter depend on the stage of civilisation reached and perhaps also on Race. I have a habitual distrust of positive arguments based on the conception of the optimum, for the optimum in the social sciences is not definitely ascertainable, and not definable except in relation to results. And where these very results form the subject of debate, the concept of the optimum can afford no help. Huntingdon is rather impatient with the historians who say that climatic changes are not needed in order to explain the historical facts. He argues that the primary question is whether climatic changes have taken place in historical times, and if they have, the historian is bound to take note of them and enquire into their effect, just as he inquires into the effects of barriers like Alps or of great men like Socrates. (p. 342.) But his own statement that the effects of climatic changes depend on the deviation from optimum climatic conditions caused thereby, that, in plain words, the effects of climatic changes may be great or small according to the circumstances of each individual case, makes it seem less worth while for the historian to pursue so elusive a game.

The historian cannot also help reflecting how little the conditions of physical climate seem to have with such world-historic events like the Reformation or the French Revolution, the Great War or the Russian Revolution, and how much more important

the moral and spiritual climate is in explaining these great occurrences. And if from what he sees more clearly, he makes an inference in relation to what is not so clearly recorded, and concludes that either there were no important climatic changes in historical times, (the case of Geological periods stands on another footing), or if there were, they had not such consequences as to merit the historian's attention, he is probably only following the best course that is yet open to him. His presumption that in the history of civilisation the "Social heritage" counts far more than the physical environment remains unshaken.

I think it was Buckle who first made an elaborate attempt to explain the history of India by the rice-eating propensities of her people. The modern geographer makes a more general effort and has a theory regarding the civilisation of the rice-fields. One of the most remarkable statements of this theory is the chapter on "The Civilisation of Rice Lands" in Huntingdon's *The Human Habitat*. It is not a mere description of the characteristics of rice-civilisation, but an attempt to explain the history of rice-lands in terms of their geographical environment. I have not the time to examine here in detail the amazing contentions and the highly imaginative excursions into pre-history calculated to arrest our attention, but this I will say, that when we come to historical times, it is no longer a case of Geography explaining History and bringing fresh light to it, but of History controlling the thought of the geographer. The chapter concludes with the remarkable statement: "Our purpose here is merely to point out that in the past, and perhaps in the future, the conditions that favour the greatest density of population and the greatest aggregations of human beings are those which make rice cultivation feasible for people with tropical appetites, desires and modes of living, and yet with a high degree of culture according to tropical standards." The climate, in other words, which is good for rice, also necessarily makes for low economic standards and a conservative social system. To me this looks more like propaganda and less like science. It is quite possible to explain much of the present backwardness of the tropics in terms of human action which has nothing more to do with climate than with the Binomial theorem; and Huntingdon makes not the slightest attempt to allow for these factors and to determine the residue that may, if at all, be attributed to climate, which at one time did not stand in the way of some countries in the tropics reaching a relatively high culture, not merely according to a tropical, but by a more absolute standard.

Let me point to another instance of the alliance between Geography and propaganda. This time I choose my example from a definitely propagandist book. For the benefit of an American audience whom he addressed in 1930, Lord Meston began his discourse on the origin and growth of Hinduism: "permeating our general conceptions of bygone India must be that of a country singularly isolated and absorbent, with few entrances and practically no exits. In Europe the ancient world was one of much racial movement and migration; the mediaeval world was busy with the comings and goings of soldiers and adventurers, travellers and scholars, for whom national boundaries were of small account. Not so with India. There was no continental interchange of men and thought. Almost a continent in itself, its land frontiers were great mountain masses, the loftiest and densest of this globe, while elsewhere the unknown terrors of the ocean guarded it. Into this pocket on the earth's surface there flowed wave after wave of human race—not to recede again—but to soak into the soil It lived in seclusion, in itself and for itself, churning over and over for centuries, under enervating skies, its own speculations on life and eternity. No cleansing winds of outside thought swept through the galleries of the mind".* In this tirade on India's isolation, Lord Meston grudgingly admits that there was some commerce by sea with the west and that we hear of occasional missions of western courts; but this intercourse with the outer world was all, according to his Lordship, very partial and spasmodic.

A mountain and a sea frontier are not the monopoly of India, and in sober truth they did not act as barriers to foreign intercourse more than they did in other countries, Italy for instance, and in the eyes of the historian, the isolation of India was never so pronounced as in recent historical times after the advent of the European nations on her soil. Much recent work in archaeology, philology and anthropology is calculated to show with increasing distinctness the place of Indian culture in a belt of closely related and freely communicating cultures spreading across the whole of Southern India and the Pacific ocean, and to bear down the superficial estimate of India's isolation held by the last generation of India's historians. A perusal of works like Hudson's *Europe and China* or Ferrand's *Textes Arabes etc.*, bearing on the trade of the Indian ocean for many successive centuries will

* Nationhood for India (Oxford 1931), pp. 1-2.

show how regular and important were the contacts India maintained with the countries to the West and East of her. Stein's explorations on the one side, and the work carried out by the Dutch and French archaeological departments in the East Indies and Indo-China reveal the wide range and firm hold of Indian influence on the cultures of foreign lands.

Now my object in dwelling at some length on the limits of Historical Geography is not to argue that the historian has no interest in geographical studies or that the geographer should make no attempt to explain historical facts from geographical environment. Geography is a young science and it is perhaps difficult for any science in its adolescence to resist the temptation to be flighty and meretricious. Geography must beware of going too far, and asserting much more than it can, with the data in its possession, prove to the satisfaction of fellow-workers in other fields. When all is said, Geography is a science of things and at the other end of the pole is Man; the geographical outlook is apt to stress the influence of the environment too much, and unduly neglect the various human influences at work to transform the environment and overcome obstacles presented by it. Any suggestion that this privilege of humanity depends upon Latitude or Longitude cannot be received with too much caution. Geography is no stranger to exact and scientific methods in some of its branches and no one dreams of calling into question the great achievement of Geography on these lines. But in all that relates to human character and History, the geographer has perhaps unconsciously, been too often the plaything of accident or prejudice. With patience, a scrupulous regard for objective data, and readiness to allow for the play of extra-geographical influences on the problem on hand, better results will no doubt be reached. Historical Geography is an exacting study; the continuous action and reaction between environment and human progress is the most difficult aspect of dynamic human geography; and the problem is always complicated by the presence of the imponderable considerations attaching to race.

Of the teaching of Geography in our schools I cannot hope to say much, or indeed anything, that is likely to interest you. With your leave, however, I wish to make one general observation. I am tempted to make it for two reasons. First, I believe that there is a real need for a radical change in our methods of teaching not only of Geography, but of most of our school sub-

jects. It seems to me that our practice makes education too much of a process of stuffing the mind and too little of what it should be, a process of drawing out the latent capacity of the mind. We must put a stop at the earliest opportunity and as completely as possible to the phenomena of the teacher who lacks a full view of his subject and gets up 'notes' from day to day on the successive heads of a heavy syllabus, and of the pupil assiduously 'getting up' these notes for the examination. Secondly, the question of the content of our secondary education course is becoming a serious problem, and the authorities in charge of the secondary course appear to me to be embarking on a reform which, in the name of "freedom in education", seems calculated to maim the secondary course hopelessly. Geography loses heavily in the change and so does History.

We have short memories. Not many years ago, the cry was against the premature specialism of the old S. S. L. C. Course and for an all round general education. I believed in that plea then, and nothing has happened to change my belief. I must say this, however, that when we came to grips with the details, we saw that the enthusiasm of specialists outran the pupils' capacity for assimilation; and the demands of the men of science, that the pupils who seek scientific education in the University must have a special preparation for it at the school stage, had to be met somehow. We got a somewhat overloaded group of five compulsory subjects, and a single optional subject, literary or scientific for pupils seeking entrance to the University, that is, in practice, for every pupil, for there is none so mean as not to aspire for a University degree. Now the pendulum swings back to the old position, three compulsory subjects and two options. I am afraid that this course, if decided upon, would leave our secondary education course still in a position of unstable equilibrium, and we may be up against the whole problem in the course of a few years; for in this country, public opinion has a way of being somnolent at the proper time when reforms are on the anvil, and of beginning to kick against them just a little too late.

With the rapid increase of factual knowledge on all hands, the problem of the content of the school course is becoming increasingly difficult of solution in all countries of the world. Ours is not by any means the only country where the school curriculum is the battle ground of specialists, each sincerely actuated by the firm conviction that no education can be complete which does not

give a good grounding in his subject. But we have other difficulties besides. Our elementary schools are hopelessly backward, and in one word, we do not get our money's worth even for the small expenditure on this branch of our educational system; our secondary schools do not recruit pupils coming out of well managed schools, and we have no system of efficient and compulsory education to the age of fourteen on which the high school course may be built. And despite the option to teach through the mother tongue, our teachers still prefer the English medium for the bulk of their work, a medium which does not conduce to the comfort of either teacher or pupil.

It seems to me that to attain a proper balance in our high school course, we must not cut down the content so drastically as to confine the compulsory part of the course to the three R's and then give the choice of any two odd bits from a wide range of science and arts subjects. The better method seems to be to do away with the single optional subject and use the time so released not to intensify the training in the general subjects, but to introduce the much needed variety and interest in the school programme in the form of options with a vocational and technical bias. In the general and compulsory part of the course, there must be worked out a reasonable syllabus in each subject and an attempt made to diminish the strain of the examination. The aim of the syllabus in each subject must be to bring the pupil into intimate contact with a selected part of the subject; and equip him with the capacity and the desire to carry his studies further on his own. For this, more than the syllabus, the method of its treatment in the class-room counts. The teachers must be able to furnish skilful guidance through the subject-matter which lies before the pupil and teach him to put his time to the best use. And the type of examination must be such as will test, not the capacity to memorise and repeat facts at proper notice, but the general ability of the pupil and the extent to which he had been able to assimilate the subjects in his course and make them part of his permanent mental equipment.

I believe that experts in Geography, if they feel that there is something in what I have said, can and will contribute their quota towards improvements along such lines. It is with some diffidence that I commend to your consideration the method suggested by the following description of the teaching of Geography in a German school of to-day: "A class of twelve-year-old boys has recently

returned from a journey to the island of Sylt in the North Sea. There the thirty-eight lads spent two weeks with their teacher, who is continuing to use those common experiences in class work. On the walls of the room are many maps, sketches, and paintings made by the pupils during or after the trip. A picture-map of the journey down the Elbe River, a topographical map of the island, and other diagrams showing the region and route followed were made at home by the pupils after they had been given some instruction in the technique of enlarging maps accurately. There are many drawings and paintings of fish seen in the markets and in the waters around the island. A record of the tidal stages was kept during their stay at the seashore. A number of stories of camp life and descriptions of the trip have been written voluntarily."